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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,150	01/23/2001	Stephen Guy Routliffe	10596-US	1398

23553 7590 06/01/2005

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EXAMINER	
WAHBA, ANDREW W	
ART UNIT	**PAPER NUMBER**
2661	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/767,150	ROUTLIFFE, STEPHEN GUY	
	Examiner	Art Unit	
	Andrew W. Wahba	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-11,13,14,17 and 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-11,13,14,17 and 18* is/are rejected.

7)☒ Claim(s) *4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *08/23/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 4 objected to because of the following informalities: In claim 4, the applicant refers to "said data" (line 1). The applicant claims "inserting data therein" (claim 1, line 10). The office does is uncertain as to whether the applicant intended to refer to this portion of claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3-11, 13-14 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota (US Patent 5,946,325) in view of Saito et al, hereinafter Saito (US Patent 6,198,742).

With regard to claim 1, Shiota discloses a memory 12 (storing said cell template in a memory) that further includes a memory table 27 (creating a cell template) in which pieces of information used to form frames into cells are written in units of output channels (column 3, line 65 – column 4, line 6). A memory table referring section 19 (creating a pointer table / using said pointer table) reads out AAL frames from channel queues 17 and refers to the memory table 27 (to store the location of said cell template

data / to locate said template data structures) of the memory 12 (in said memory) (column 4, lines 32-34). In each channel queue 17, a read pointer 31 and a write pointer 29 check the input and output of an AAL frame (column 4, lines 23-27). The AAL processing section 22 reads out frame information from memory table 28 in the memory 12 in units of 48 bytes and adds (inserting) cell headers to the readout information to assemble ATM cells (assembling said cells) (column 4, lines 60-63).

Shiota does not expressly disclose supporting different types of cells and the structure of each type cell to be assembled. Saito, however, discloses use of a cell template for different cell types (column 4, lines 8-9).

A person of ordinary skill in the art would have been motivated to employ Saito in Shiota so as to support inputs that included different data types (Saito, column 4, lines 8-9). At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Shiota and Saito (collectively "Shiota-Saito") to obtain the invention specified in claim 1.

With regard to claim 3, Shiota discloses in each channel queue 17 (for each virtual channel), a read pointer 31 and a write pointer 29 (creating a separate pointer) check the input and output of an AAL frame (column 4, lines 23-27).

With regard to claims 4, 5 and 9, Shiota discloses a memory table referring section 19 reads out AAL frames (TDM data) from channel queues 17 (organized into a plurality of channels / circular buffers) and refers to the memory table 27 (template data structures) of the memory 12 (column 4, lines 32-34). In each channel queue 17, a read pointer 31 and a write pointer 29 (*collectively*, pointers) check the input and output of an

AAL frame (column 4, lines 23-27). A round-robin selecting section 20 (control which channels / controlling the order in which data / round-robin fashion) selects AAL frames to be formed into cells (assembled cell / cell payload) (column 4, lines 43-45).

With regard to claim 6, Shiota discloses a processor 10 (central processing unit) that performs processing in accordance with instructions of software (program) (column 3, lines 56-58).

With regard to claims 7 and 8, Saito discloses use of a cell template for different cell types (column 4, lines 8-9). The suggestion that a cell template may be used for different cell types provides sufficient motivation to apply templates for the generation of DBCES cell template data structure. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to employ templates for the generation of DBCES cells to obtain the invention as specified in claims 7 and 8.

With regard to claim 10, Shiota discloses a memory 12 (memory storing cell template) that further includes a memory table 27 (cell template) in which pieces of information used to form frames into cells are written in units of output channels (column 3, line 65 – column 4, line 6). A memory table referring section 19 (pointer table) reads out AAL frames from channel queues 17 and refers to the memory table 27 (storing the location of said cell template data structures / retrieving said template data structures) of the memory 12 (said memory) (column 4, lines 32-34). In each channel queue 17, a read pointer 31 and a write pointer 29 check the input and output of an AAL frame (column 4, lines 23-27). The AAL processing section 22 reads out frame information

from memory table 28 in the memory 12 in units of 48 bytes and adds cell headers to the readout information to assemble ATM cells (segmentation unit / assemble said cells) (column 4, lines 60-63).

Shiota does not expressly disclose supporting more than one template data structure, i.e. applicant's template data structures. Saito, however, discloses use of a cell template for different cell types (column 4, lines 8-9).

A person of ordinary skill in the art would have been motivated to employ Saito in Shiota so as to support inputs that included different data types (Saito, column 4, lines 8-9). At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Shiota and Saito (collectively "Shiota-Saito") to obtain the invention specified in claim 10.

With regard to claim 11, Shiota discloses a processor 10 (central processing unit) that performs processing in accordance with instructions of software (column 3, lines 56-58). The processor 10 accesses (connected) the memory 12 (memory) (column 3, lines 62-64).

With regard to claims 13, 14 and 17, Shiota discloses a memory table referring section 19 reads out AAL frames (TDM data) from channel queues 17 (TDM channels / circular buffers) and refers to the memory table 27 (cell template data structures) of the memory 12 (column 4, lines 32-34). In each channel queue 17, a read pointer 31 and a write pointer 29 (*collectively*, circular buffer pointers) check the input and output of an AAL frame (column 4, lines 23-27). A round-robin selecting section 20 (controlling /

control the order in which data / round-robin fashion) selects AAL frames to be formed into cells (cell payload) (column 4, lines 43-45).

With regard to claim 18, Shiota discloses a memory 12 (memory for storing cell template) that further includes a memory table 27 (cell template) in which pieces of information used to form frames into cells are written in units of output channels (column 3, line 65 – column 4, line 6). A memory table referring section 19 reads out AAL frames (TDM data) from channel queues 17 and refers to the memory table 27 (retrieving said template data structures) of the memory 12 (column 4, lines 32-34). In each channel queue 17 (circular buffers / virtual circuit), a read pointer 31 and a write pointer 29 (*collectively*, pointers) check the input and output of an AAL frame (column 4, lines 23-27). The AAL processing section 22 reads out frame information from memory table 28 in the memory 12 in units of 48 bytes and adds cell headers to the readout information to assemble ATM cells (segmentation unit / assemble said cells) (column 4, lines 60-63).

Shiota does not expressly disclose supporting more than one template data structure, i.e. applicant's template data structures. Saito, however, discloses use of a cell template for different cell types (column 4, lines 8-9).

A person of ordinary skill in the art would have been motivated to employ Saito in Shiota so as to support inputs that included different data types (Saito, column 4, lines 8-9). At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Shiota and Saito (collectively "Shiota-Saito") to obtain the invention specified in claim 18.

Response to Arguments

4. Applicant's arguments with respect to claims 1, 3-11, 13-14 and 17-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew W. Wahba whose telephone number is (571) 272-3081. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully Submitted,

Andrew Wahba
Patent Examiner
May 28, 2005

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600